

Project Code and Title

B.02.02.01.03 Vehicle Parameter Database

Project Objective

Create and maintain a Crashworthiness Vehicle Parameter Database that contains necessary data on crashworthiness related technologies, features, and measurements for selected various makes and models currently in the fleet.

Background

The Administrator's priority plan called for the agency to identify its data collection needs and evaluate alternative data collection options with the goal of implementing a new crash data collection system during 1992. A single reliable source was needed for obtaining specification on automobiles quickly and electronically. The specification sheets prepared by the various manufactures for the American Automobile Manufacturers Association is the best known source for this information and were used as the basis for the information in the database.

Problem Definition

Analyses of damage sustained by vehicles in accidents is based on post-crash information and is somewhat limiting since pre-crash vehicle measurements are not usually known or readily available. The ability to compare pre-crash and post-crash basic vehicle measurement characteristics provides a greater insight into analyzing vehicle damage, degree of intrusion, source of injury, etc. There was no known single electronic source for obtaining all the specifications for multiple years of vehicles. The database was created to fill this void.

Research Approach

Reviewed contents of old Motor Vehicle Attributes Database (1980) to determine if it could serve as a starting point for developing the new Database. Reviewed MVMA spec sheets to determine what information is available on new vehicle parameters, such as air bag characteristics. Developed short, intermediate, and long term products that will increase the utility and accessibility of the current databases. This included indexes that can refer the user, by make and model, to the OCR Biomechanics, Vehicle Crash Test, and Vehicle Component databases and film collections to complete the library of files. Update the databases on a yearly basis.

Potential Impact/Application

The database is a useful tool for accident investigators and accident reconstructionists to measure vehicle intrusion and determine damage severity. It can also help to accelerate the development and application of improved safety technologies to save lives and reduce injuries.

Key Milestones

- ▶ Format for database was created in late 1991. By late summer of 1992, specification information for over 1200 vehicle model years 1980-1991 was entered into the database.
- ▶ Publication of results of work (see citation below).

RESOURCE REQUIREMENTS	FY97	FY98	FY	FY	FY
Contract Money (\$K)	385	385			

Project Manager(s)

Catherine McCullough (202) 366-4734, catherine.mccullough@nhtsa.dot.gov

Completion Date

Ongoing project. Information will be added to database as new models are released.

Publications

- ▶ “Applications of NHTSA’s Vehicle Parameter Database” (SAE 950360) by Catherine A. McCullough, William T. Hollowell and Peter Battisti, SAE International Congress and Exposition, Detroit, Michigan, February 27-March 2, 1995.

Keywords: Measurements, Specifications, Specs, Interior Measurement, Exterior Measurement

Project Tasks

<u>Task</u>	<u>Title and Description</u>
Task 1	Develop SOW for TSC
Task 2	TSC Briefing on Past and Current Work
Task 3	Review old Motor Vehicle Attributes Database
Task 4	Develop List of Parameters
Task 5	Develop Format for new Vehicle Parameter Database and enter available data
Task 6	Update/Maintenance of Attributes Database:
Task 6a	Specs for vehicle model years 94 -96 added to Database and quality controlled
Task 6b	Specs for vehicle model year 97 added to database and quality controlled
Task 7	Enhancement/Expansion of Attributes Database:
Task 7a	Quattro Spreadsheet Created on Data Elements
Task 7b	Incorporation of Fuel Tank Data for all Vehicles in Database
Task 7c	Preparation of Final Users Manual

Task	Start Date	Projected Completion Date	Status/Responsibility
1	6/91	7/91	Completed - Inhouse Staff & VNTSC
2	8/91	8/91	Completed - Inhouse Staff & VNTSC
3	8/91	9/91	Completed - Inhouse Staff & VNTSC
4	9/91	10/91	Completed - Inhouse Staff & VNTSC
5	10/91	6/92	Completed - Inhouse Staff & VNTSC
6a	5/94	7/96	Completed - VNTSC
6b	8/96	12/96	Ongoing - VNTSC
7a	2/96	2/96	Completed - Inhouse Staff
7b	6/96	10/96	Ongoing - Inhouse Staff & VNTSC
7c	4/96	6/96	Completed - Inhouse Staff

Supporting Contracts

Task	Contract Number	COTR (phone)	Contracting Officer (phone)	Total Contract Cost (\$K)
1-6b, 7b	TSC-HS-576			